



[10191/4095]

**THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES**

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In re Application of:

Armin Koehler et al.

: Examiner: Helal A Algahaim

For: METHOD FOR ACTIVATING
PERSONAL PROTECTION MEANS

Filed: May 8, 2007

: Art Unit: 3663

Serial No.: 10/583,055

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MAIL STOP APPEAL BRIEF - PATENT
Commissioner for Patents
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REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41

SIR:

Appellants submit the present Reply Brief in response to the Answer of March 10, 2010, for which the two-month reply brief due date is May 10, 2010.

It is respectfully submitted that the final rejections of pending claims 11 to 30 should be reversed for the reasons explained below.

ARGUMENTS

THE OBVIOUSNESS REJECTIONS OF CLAIMS 11, 13, 15, AND 20

Claims 11, 13, 15, and 20 were rejected under 35 U.S.C. § 103(a) as unpatentable over Andres, U.S. Patent No. 6,236,922 in view of Mattes et al., U.S. Patent No. 5,014,810.

To reject a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Also, as clearly indicated by the Supreme Court in *KSR*, it is “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. *See KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007). In this regard, the Supreme Court further noted that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.*, at 1396. Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Claims 11, 13, 15 & 20

Claim 11 includes the features of “using a forward displacement as the at least one signal” and “comparing the at least one signal to at least one threshold value surface, which is set as a function of a velocity decrease and a deceleration.” In this regard, the Office cites “Andres” at col. 3, lines 4 to 22, but this section merely states that:

[The] calculation of the first velocity begins when the **acceleration signal exceeds a threshold deceleration level**. This threshold deceleration level may be adjusted for various vehicle models as desired. The calculation of the second velocity begins, and the calculation of the first

velocity *is concluded*, when two conditions are satisfied. The first condition is that the first **velocity** has reached a **threshold level**. The second condition is either that a significant **deceleration peak** has been reached in the filtered **acceleration** signal, or that an approximation has been made that the **displacement** of the occupant has reached a certain **displacement threshold**.

(“Andres” reference, col. 3, lines 4 to 22) (emphasis added).

Claim 11 clearly provides for a “**comparing**” between “a forward displacement” and a value “set as a function of a velocity decrease and a deceleration.” This feature is clearly not disclosed or suggested by the “Andres” reference. The Office Actions to date (including the Advisory Action of September 10, 2009) and the Answer have only conclusorily asserted that:

Claim 1 recites the following terms “a forward displacement, velocity and deceleration”. The claim fails to specify if the forward displacement correspond to a passenger displacement, vehicle displacement or any other object displacement. Also, the claim fails to specify the if the terms velocity and deceleration correspond to the vehicle itself or any other object. In addition, Andres deploys airbag by detecting the velocity, deceleration and occupant displacement.

However, this assertion (even if true) does not render claim 11 unpatentable because it does not even assert that the prior art reference(s) disclose or suggest all of the features of claim 11. More specifically, the “Andres” reference does not disclose the claim feature of “**comparing the [forward displacement] to at least one threshold value surface, which is set as a function of a velocity decrease and a deceleration**”, as provided for in the context of the presently claimed subject matter. The Office has simply not provided a **comparison** in the “Andres” reference that discloses *each and every one of these features*.

The cited text of the “Andres” reference refers to 2 separate comparisons. In the first comparison, an acceleration is measured against a threshold deceleration level. This comparison clearly does not disclose the above-discussed features of claim 11. First, velocity is simply not used in this comparison, since the comparison starts with “a calculation of the first velocity.” Additionally, there is *no displacement in any direction of any object* used in this comparison. Thus, it could not possibly disclose the feature of “comparing the [forward displacement] to at least one threshold value surface, which is set as a function of a velocity decrease and a deceleration,” as provided for in the context of the presently claimed subject matter.

The second comparison ends one velocity calculation and begins a second one “when two conditions are satisfied”, which is stated to be as follows:

The first condition is that the first velocity has reached a threshold level. The second condition is either that a significant deceleration peak has been reached in the filtered acceleration signal, or that an approximation has been made that the displacement of the occupant has reached a certain displacement threshold.

It is plain that this also does not disclose all of the features of claim 11, namely the feature of “*comparing the [forward displacement] to at least one threshold value surface, which is set as a function of a velocity decrease and a deceleration.*” For example, the “Andres” reference does not disclose a “threshold value surface, *which is set as a function of a velocity decrease and a deceleration*”, as provided for in the context of the presently claimed subject matter. Instead, the displacement of the occupant is compared to a certain *displacement threshold*. However, the “Andres” reference does not disclose any “displacement threshold” that is “set as a function of a velocity decrease and a deceleration.”

The Answer conclusorily states (at page 9) that “Andres deploys airbag by detecting the velocity, deceleration and occupant displacement, and that prior arts cited disclose the claims limitations as presently written.” Once again, it is not even asserted that the prior art reference(s) discloses or suggests all of the features of claim 11. Specifically, no mention is made of any comparison as provided for in the context of the presently claimed subject matter.

In short, even if the “Andres” reference did refer to several measurements, none of the measurements disclose or even suggest the feature of comparing a displacement (in any direction of any object) to a threshold “set as a function of a velocity decrease and a deceleration,” as provided for in the context of the presently claimed subject matter.

Accordingly, claim 11 is allowable, as are its dependent claims 13, 15, and 20.

THE OBVIOUSNESS REJECTION OF CLAIM 12

Claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,236,922 (“Andres”) in view of U.S. Patent No. 5,014,810 (“Mattes”), in further view of U.S. Patent No. 6,459,366 (“Foo”), and in further view of U.S. Patent Application No. 2003/0197356 (“Fisher”).

CLAIM 12

Claim 12 depends from claim 11, and it is therefore allowable for essentially the same reasons, since the “Foo” and “Fisher” references do not cure – and are not asserted to cure -- the deficiencies of the “Andres” reference, as explained above as to claim 11.

Furthermore, claim 12 is also allowable for the following further reasons. Even if the Foo reference did somehow refer to comparing a crash velocity to a velocity threshold that is set as a function of the crash displacement, it does not disclose or suggest the feature of comparing a forward displacement to a forward displacement threshold value which is set as a function of the velocity decrease, as provided for in the context of the presently claimed subject matter of claim 12.

In particular, the cited section of Foo is clear that the actuation is controlled *in response to the determined crash velocity value relative to the value of the threshold, in which the threshold value is provided having a value functionally related to determined crash displacement*. (See Foo at col. 2, lines 10 to 19). This is wholly different than the presently claimed subject matter.

Therefore, claim 12 is also allowable for this further reason.

THE OBVIOUSNESS REJECTION OF CLAIM 14

Claim 14 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,236,922 (“Andres”) in view of U.S. Patent No. 5,014,810 (“Mattes”), and in further view of U.S. Patent No. 6,549,836 (“Yeh”).

CLAIM 14

Claim 14 depends from claim 11, and it is therefore allowable for essentially the same reasons, since the “Yeh” reference does not cure – and is not asserted to cure -- the deficiencies of the “Andres” reference, as explained above as to claim 11.

THE OBVIOUSNESS REJECTIONS OF CLAIMS 16 TO 19

Claims 16 to 19 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,236,922 (“Andres”) in view of U.S. Patent No. 5,014,810 (“Mattes”), in further view of U.S. Patent No. 6,459,366 (“Foo”), and in further view of U.S. Patent Application No. 2003/0197356 (“Fisher”).

CLAIMS 16 TO 19

Claims 16 to 19 depend from claim 11, and they are therefore allowable for essentially the same reasons, since the “Foo” and “Fisher” references do not cure – and are not asserted to cure -- the deficiencies of the “Andres” reference, as explained above as to claim 11.

THE OBVIOUSNESS REJECTIONS OF CLAIMS 21 TO 30

CLAIMS 21 TO 30

It is respectfully submitted that claims 21 to 30 depend from claim 11, and they are therefore allowable for the same reasons as claim 11, as explained above as to claim 11.

Furthermore, claim 21 is also allowable for the following further reasons. Even if the Foo reference did refer to comparing a crash velocity to a velocity threshold that is set as a function of the crash displacement, it does not disclose the feature of comparing a forward displacement to a forward displacement threshold value which is set as a function of the velocity decrease, as provided for in the context of the presently claimed subject matter of claim 21.

In particular, the cited section of Foo makes plain that the actuation is controlled *in response to the determined crash velocity value relative to the value of the threshold, in which the threshold value is provided having a value functionally related to determined crash displacement.* (*See* Foo at col. 2, lines 10 to 19). This is wholly different than the presently claimed subject matter.

Therefore claim 21 is also allowable for this further reason, as are its dependent claims.

Accordingly, claims 11 to 30 are allowable.

As further regards all of the obviousness rejections, the § 103 rejections are apparently based on assertions that draw on facts within the personal knowledge of the Examiner, since no support was provided for these otherwise conclusory and unsupported assertions. Even though requested to do so, the Examiner never provided an affidavit and/or published information concerning these assertions. (*See also* MPEP § 2144.03).

As further regards each of the obviousness rejections, it is respectfully submitted that the cases of *In re Fine*, *supra*, and *In re Jones*, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992), make

plain that the Office's generalized assertions that it would have been obvious to modify or combine the references do not properly support a § 103 rejection. It is respectfully submitted that those cases make plain that the Answer reflects a subjective “obvious to try” standard, and therefore does not reflect the proper evidence to support an obviousness rejection based on the references relied upon. In particular, the Court in the case of In re Fine stated that:

The PTO has the burden under section 103 to establish a *prima facie* case of obviousness. It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. This it has not done. . . .

Instead, the Examiner relies on hindsight in reaching his obviousness determination. . . . One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

In re Fine, 5 U.S.P.Q.2d at 1598 to 1600 (citations omitted; italics in original; emphasis added). Likewise, the Court in the case of In re Jones stated that:

Before the PTO may combine the disclosures of two or more prior art references in order to establish *prima facie* obviousness, there must be some suggestion for doing so, found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. . . .

Conspicuously missing from this record is any evidence, other than the PTO's speculation (if it be called evidence) that one of ordinary skill . . . would have been motivated to make the modifications . . . necessary to arrive at the claimed [invention].

In re Jones, 21 U.S.P.Q.2d at 1943, 1944 (citations omitted; italics in original).

That is exactly the case here since it is believed and respectfully submitted that the Office Actions to date and the Answer offer no evidence whatsoever, but only conclusory hindsight, reconstruction and speculation, which these cases have indicated does not constitute evidence that will support a proper obviousness finding. Unsupported assertions are not evidence as to why a person having ordinary skill in the art would be motivated to modify or combine references to provide the claimed subject matter of the claims to address the problems met thereby. Accordingly, the Office must provide proper evidence of a motivation for modifying or combining the references to provide the claimed subject matter.

Also, the Federal Circuit in the case of In re Kotzab has made plain that even if a claim concerns a “technologically simple concept” — which is not the case here — there still must be some finding as to the “specific understanding or principle within the knowledge of a

skilled artisan” that would motivate a person having no knowledge of the claimed subject matter to “make the combination in the manner claimed,” stating that:

In this case, the Examiner and the Board fell into the hindsight trap. The idea of a single sensor controlling multiple valves, as opposed to multiple sensors controlling multiple valves, is a technologically simple concept. With this simple concept in mind, the Patent and Trademark Office found prior art statements that in the abstract appeared to suggest the claimed limitation. But, there was no finding as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of Kotzab's invention to make the combination in the manner claimed. In light of our holding of the absence of a motivation to combine the teachings in Evans, we conclude that the Board did not make out a proper prima facie case of obviousness in rejecting [the] claims . . . under 35 U.S.C. Section 103(a) over Evans.

In re Kotzab, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000) (emphasis added). Here again, there have been no such findings to establish that the features discussed above of the rejected claims are met by the reference relied upon. As referred to above, any review of the reference, whether taken alone or combined, makes plain that the reference simply does not describe the features discussed above of the rejected claims.

Thus, the proper evidence of obviousness must show why there is a suggestion as to the reference so as to provide the subject matter of the claimed subject matter and its benefits.

In short, there is no evidence that the reference relied upon, whether taken alone or otherwise, would provide the features of the claims discussed above. It is therefore respectfully submitted that the claims are allowable for these reasons.

As still further regards all of the obviousness rejections of the claims, it is respectfully submitted that a proper *prima facie* case has not been made in the present case for obviousness, since the Office Actions to date and the Answer never made any proper findings, such as, for example, regarding in any way whatsoever what a person having ordinary skill in the art would have been at the time the claimed subject matter of the present application was made. (See In re Rouffet, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998) (the “factual predicates underlying” a *prima facie* “obviousness determination include the scope and content of the prior art, the differences between the prior art and the claimed invention, and the level of ordinary skill in the art”)). It is respectfully submitted that the proper test for showing obviousness is what the “combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art”, and that the Patent Office must provide particular findings in this

regard — the evidence for which does not include “broad conclusory statements standing alone”. (See *In re Kotzab*, 55 U.S.P.Q. 2d 1313, 1317 (Fed. Cir. 2000) (citing *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1618 (Fed. Cir. 1999) (obviousness rejections reversed where no findings were made “concerning the identification of the relevant art”, the “level of ordinary skill in the art” or “the nature of the problem to be solved”))). It is respectfully submitted that there has been no such showings by the Office Actions to date or by the Answer.

In fact, the present lack of any of the required factual findings forces both Appellants and this Appeals Board to resort to unwarranted speculation to ascertain exactly what facts underly the present obviousness rejections. The law mandates that the allocation of the proof burdens requires that the Patent Office provide the factual basis for rejecting a patent application under 35 U.S.C. § 103. (See *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984) (citing *In re Warner*, 379 F.2d 1011, 1016, 154 U.S.P.Q. 173, 177 (C.C.P.A. 1967))). In short, the Examiner bears the initial burden of presenting a proper prima facie unpatentability case — which has not been met in the present case. (See *In re Oetiker*, 977 F.2d 1443, 1445, 24, U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992)).

CONCLUSION

In view of the above, it is respectfully requested that the rejections of the finally rejected claims 11 to 30 be reversed, and that these claims be allowed as presented.

Dated: 5/10/2010

Respectfully submitted,

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